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"Voice of the Mechanic Arts Club"

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RESPONSIBILITIES MECHANIC ARTS IN PRESENT CRIRSIS

Mechanic Arts has a proud history. It would be useless to speak of the "Responsibilities of Mechanic Arts ini the Present Crisis if Arts had been a factor before the crisis. To this aspect I wish to direct a few obesrvations.

Let us look more closely. In order to appreciate the value of a responsibility in the present, it is well to examine some of the achievements of Mechanic Arts in the yesterdays. Industrial or Mechanic Arts has made the following contributions to the training of youth:

it has captured the imagination of school boys and stimulated their interest in all phases of industrial and mechanical procedure.

it has given opportunity for youth to find a suitable form of expression and an effective one—expression through doing things.

it has not only taught people how to do things but how to do them the right way.

It opens up avenues of interest and gives the boys an opportunity to know where and with what activity they may be likely to succeed.

it gives orientation to motor-minded individuals, and also discovers boys and girls with aesthetic appreciation, thus developing a reservoir of youth with capabilitiies for profiting in very many practical and artistic occupations.

Finaly, industrial arts has enhanced the appreciaiton for science and invention, which has a definite relation to most modern business and industrial activities American characteristic.

With reference to the immedi-

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THE IMPORTANCE OF PRINTING TO THE WAR EFFORT

By D. Raphael Oliver

at what the United States is the vor[illegible] the Axis aggressors, more and [illegible] the press becomes glo for survival to our struggle at home have it only must magazines, books, newspapers, [illegible] matter to "keep other [illegible] but our [illegible] with abroad [illegible] Africa to Austr[illegible] are hardly content without adequate printed material.

Only the mentally blind would fail to see that it is partially through our press that news is Our defense workers and the pop- transmitted from one to another. ulation in general anxiously await the printed word to check on our progress in blasting the Axis to their inevitable doom.

Probably some of you are not aware of the fact the complete printing installations are placed on our gigantic capital ships as well as on some of the other large warships. Yes, the sailors must have their newspapers and magazines to build up morale as well as encourage good fellowship.

With the priorities and regulations becoming more restrictive, the printing industry, too, is hit hard as well as other business concerns. Nevertheless, it is helping the war effort by abiding by ration rules in an effort to conserve paper, metal and other vital war materials.

Believe it or not, but it is a fact that some printers are incredibly enthusiastic in aiding the war effort. One particular incident occurred in which a woman linotype operator, after finishing her day's work at the Print Shop, started collecting tin foil from discarded cigarette wrappers, selling it, and turning the entire proceeds over to a fund to buy cigarettes, candy, writing paper, etc., for men in the service.

So, the printing industry is carrying on with Uncle Sam—on land and on the sea. It is carying

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DIVISION PLANS GALA ATTRACTIONS, EXHIBITS PUBLIC INVITED

Tonight at 7:30 p. m. the Division of Mechanic Arts throws wide its doors and cordially invites all of the campus residents to attend its Annual Open House.

The theme of the program is Engineering, The Foundation of Civilization, and the exhibits are planned so that everyone can easily see the part that engineering has played in building civilization.

to exhibits and attractions are from at[illegible]plemented with music ished by [illegible] I. E. Building, furnhis Radio Eng[illegible]lan Houston and

The program begins class. drry on the second f the laun- in the tailor shop there where, a contrast between clothe[illegible] own ea[illegible]ier civilization, modern wea[illegible] future.

From the laundry the path leads to the I. E. Building where there and what we may expect in the are displays of all phases of engineering. Each depicts the theme: "Engineerig, Tne Foundation of Civilization—"

In the N. Y. A. Shops we see of engineeringi such as, welding, men actualy on the job in phases sheet metal work, forging and machinie tool operation.

The "end of the line" is at the Power Plant where all the modern methods of producing power are shown in contrast with the older methods.

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WHAT DOES THE NEGRO SHOW DURING THE PRESENT EMERGENCY?

WM. FARRIS, Guest Editor

This article is to be taken as one man's opinion through logical thinking and observation. It is not the intention of this article to praise what the Negro has done in his relatively few outstanding representations but rather to [illegible] what hasn't and what is to be done lest he find himself further back in "the catch-up with civilization" game he is already playing.

The population in the majority in the United States has the great question before it of absenteeism. This particular problem is true with Negro groups [illegible] Negro employees deadly because of the comparative [illegible] industries. with that of other races in various campus of Prairie View an example. Classes are not —needless to go further altogether attended as the personal side is concerned, to the individual combat the tendency to go off at tangents

We should problem cited above remove all signs of and support and laxity with which we are charged of irresponsupport of absenteeism, sanction of sloven and having movement and thought, and easy-going attitudes laxity not be allowed to survive in any circumstance.

Needless it is to say and make emphatic those few accomplishments attained by us as Negroes but rather we should eliminate any excuse with which we satisfy ourselves for not working systematically, the result of which would man retardation, so far as the equalization of our race with other races is concerned in the creative side of civilization.

More of our Negroes need to become technically educated. Dare not just get enough skill to say "I have been to college." —ust last year, 1942 only one graduate was sent from Prairie View's Mechanical Department despite the fact the world is gradually becoming a mechanical monster. This was, however, no fault of the institution. To become technically educated would mean a fruitful source of manpower and strength which Negro might have to serve him as an uplift ot the possibility of his being on the same level as other thnking groups of the world.

Finally, we can decide for ourselves whether or not we want to go through another "Reconstruction Day's" period and be senators, smoke cigars and buy new desks to which to sit down and then be confiscated, as it were, winding up another 75 years later in a more tense and depressing civilization than the present one of we "can take an extra load" so to speak, rid ourselves of "barbershop satisfying attitudes'" and become producers and creative thinkers without having been given astart from some outside source. Then we will find ourselves by reason of ability demanding the status we desire.

NEW DEVELOPMENT IN ENGINEERING

By U. D. Alsop

[illegible]ntage of because pro-
Because of [illegible] stepped up in materials, [illegible] our fighting men duction [illegible] some fronts, our [illegible] engineers had to make [illegible] coverings in order to keep [illegible] with war time. Here are some of the new inventions and improvements.

A factory roof that floats on air has been constructed on a factory—circular in shape. It is 1200 feet in diameter and is supported by air pressure which is only one ounce above normal atmospheric pressure (14.7 lbs. per sq. in. at sea level). This roof can be constructed quickly, it has low operating cost, and saves vital war materials.

A submarine detector device by a New York engineer employs electro-chemical action to give warning of enemy under-sea craft operating near the coast. Detection units anchored in shallow water off shore consist of a pair of hollow spheres of dissimilar materials which generates an electric current when in contact with salt water. The vibration produced in the water by a passing submarine causes current fluctuation which is recorded on instruments ashore.

Engineers and scientists of the Eastern Rubber Company have reduced the cooking of rubber from 12 hours to 20 minutes, and 18,000 miles instead of 10,000 now have increased the mileage up to being obtained.

Westinghouse engineers have a new electrical process which makes the tin in a tin can go three times farther than it did before. The process is very fast. A single one of the new machines can turn out enough tin plate in 18 minutes to cover a football field.

"WOOD—MOST IMPORTANT WAR MATERIAL OF THE FUTURE"

Material stringencies brought about by war conditions have given a new significance and perspective to the place wood occupies in modern civilization. Before the war, wood was thought of only as a material for shelter, furniture and flooring, but now we have many new uses for wood.

Before this world crisis, for chemicals, and preservatiives from wood. Now it is being used as a many years, we have made paper, source of explosives, medicines, oils, clothing and many other products.

The following statements are four of the reasons why wood is going to be the most important raw material of the future:

1. Wood has such universal application and use.

2. It is abundantly available in a great variety of textures, hardness, durability; strength, workability and many other desirable features.

3. It is relatively inexpensive compared with other materials.

4. The United States can grow all of the wood that it needs, and can build up a substantial export trade. At present, six types of American planes are being built of plywood, about twelve are being designed of plywood, and several European warplanes, particularly English bombers, are largely made of birch plywood.

The War Production Board has banned the manufacture of some 800 items of steel and other metals, ranging from coat hangers to refrigerators. Wood is being called upon to take the place going to play a big part in it.
of these metals, and plywood is

Trucks and automobile bodies are once more being made of wood. Plans for the production of trucks with wooden bodies were geared up to the rate of 1000 a day in July; 1500 a day by the about 1000 F.B.M. each, the daily consumption for this one use is end of 1942. These trucks require about 1,000,000 F.B.M. Recently, the Army ordered 880,000 trucks and trailers in one day. This one order is estimated to save 75,000 tons of steel in 1942, and 850,000 tons in 1943.

A brief review of plastics, plynite products, and wood in its fuels, chemicals, preservatives, andd explosives indicates the importance as a source of rubber, tremendous possibilities of the future. Professional engineering as well as forestry and architectural schools are giving wider recognition to the importance of wood.

The above paragraphs show how wood is going to be the most important raw material of the future.

Freight cars with metal under construction and framing, and plywood and lumber roofing are claimed to be better than all-steel construction.

Many wooden trusses up to 132-feet span have already replaced steel for hangars, warehouses, and many permanent and temporary structures. Steel concerns have even turned to wooden members for much structural work.

CITIES OF YESTERDAY AND TODAY

By Robert Sherwood Dorsey

Cities of yesterday were very crude in industries, education, transportation, communication etc. People living in those days, when automobiles, telephone and many more of our modern luxuries did not exist, rode in horse-drawn or ox-drawn carriages and sent messages by pony express.

Industries were equipped only with hand tools. A great majority of the work was done by hand. The rate of production was very low. The machinery that these industries did possess were drawn by water or steam power. Electricity was unheard of. Anyone mentioning it would have been called a witch doctor or something of that sort. Kerosene, candles and gas lamps were used a minute, an idea of a new auto-

Decisions regarding the use of plywood, lumber, and plastics in our war plants are being made by men untrained and unskilled in the very fundamental principles of wood even, its identification, grading, defects and technical properties.

Hardwoods vary vitally from the softwoods in texture, structure, and many other properties. for lights.

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mobiles.

There were hardly any schools whatsoever. The teachers were were incapable of supplying anyone with an education. The buildings were usually one-room and poorly equipped. There were no deliveries and very few books were in circulation.

Most sciences were crude and "fumbling;" medicine was primitive and the forces of nature were relatively litle understood. People had no real knowledge of

This entire program is being presented by the students of the Mechanic Arts Division, and the public is invited to attend.
vaccination or any other toxin injected into the body for the prevention of diseases. No clinics, hospitals or any other institution for the care of one's heealth had been established.

Cities of today are completely revolutionized. We now have the automobile, the train, the steamboat to replace the horse-drawn vehicles. We have the telephone, telegraph and cablegram to replace the pony express.

The Machine Age has now appeared. Skilled workers with their hands were not needed now. These machines could be operated by men who possesesd little or no training. A machine operated by one man could do the job of thirty or more men. Production rates began to rise to fabulous heights.

Education has been given a firm foundation by the establishment of more schools, colleges, and universities. The teachers are better prepared and the curricula are far better developed.

PRINTING—

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ing on at various schools, air points. It's no secret that our fields, hospitals and other service government uses its big print shop at Washington, D. C. for war work, too.

And, the industry is carrying on in all the free countries of the world, helping to disseminate the news, keep morale high, and to win through to victory and a just peace.

RESPONSIBILITY

Continued From Page 1

ate future, and for the direct war effort, I would suggest that the M. A. Department keep up the good work and that efforts should be made to introduce women to Mechanic Arts. It is obvious with the manpower situation us it is, that many more girls will have to perform manifold jobs which are now done by men.

Again, emphasis might be placed on the two different aspects of mechanical drawing. One aspect would be to develop young women capable of mechanical drawing and detailing. The other is to teach young women blueprint reading.

Still another possibility is to offer an opportunity to learn the nature and use of precision instruments, teaching women how to read micrometer, vernier calipers nad the like, also to learn how to use the slide rule and to teach them the fundamentals of inspection work.

First of all, the functions of Mechanic Arts should go on as before except for the change in emphasis and the probable inclusion of more girls in the classes.

A DAY AT THE POWER PLANT

By James F. Harrison

That very noisy, whirring, steam emitting building located on the north side of the campus is to many of the students of Prairie View a complete mystery. Some of them have a vague idea of what goes on within, they are totally unaware.

It is my purpose in this article to inform those of the campus just what is done in the Power Plant. To make my article as easy as possible to understand, I will leave out all but the very necessary technical terms. Also as an aid to the reader I will use a typical day at the Power Plant and give an explanation of all that goes on.

I will start our day off at 6:00 getting up. At this hour the boys are dressing for reveile and the girls and faculty are also arousing. A large amount of electric current is being used and the generator must be exerting its full amount of current to supply the wants of the campus. The engineer on duty must be very alert to keep the correct amount of current flowing to the power line, lest the consumption of current becomes greater than the output. If this happens, the lights all over the campus will become dim. Sometimes it becomes necessary to put another engine "on the line." That is to start another engine and synchronize the two engines together and have them both generating current and sending it out to the consumer.

The next most important stage of our day's program occurs when the enginieer in charge starts his next round of the many gauges and diails he must check every hour. An hourly log is kept to guard agains t any malfunctioning of the power plant machinery and any emergency that might arise. Next the street lights are turned off as soon as it is possible to see clearly without them. About this time the engineer in charge is quite busy issuing ice to student workers who are icing up coolers before their early morning classes. Though heretofore the eegineer has been alone, about this time the repair crew arrives to assist him. Payrolls of the work done the previous day have to be made out by the engineer and also the duties for the repairmen for the day on hand must be assigned. Soon after the truck arrives for the interdepartmental ice deliveries. This requires the attention of the engineer also. About this time, the engineer has to enter the boiler room to "blow down" the boiler, a daily morning task.

The full crew of engineers and assistants is kept busy operating the many huge and also the delicate engines in their care. This requires their fullest attention and must be done with precise accuracy.

Constant check must be kept upon the water softeners because their perfect operation is also extremely necessary.

Throughout the day and night an alert crew is on guard in the plant to insure perfect operation of the many services their machinery performs.

The power plant is virtually the heart of the campus. From it comes electric power, steam serv' ice, hot and cold water and regulating service for all the electric clocks on the campus.

To try to explain all these in detail would be too time-consuming but when you visit the power plant on Open House Day (as you must or miss a very interesting treat) you will have all this very fully and palinly demonstrated and explained to you.

The Power Plant is under the very able and efficient supervision of Mr. F. G. Fry, Chief Engineer.

The engineers are keeping the give the best of service at all times in every possible capacity. pledge of all loyal engineers—To

eipllB ppcesOpDee

—J. E. Harrison.